

# HDP Process for High Aspect Ratio Gap Filling

## Abstract

An HDP process for high aspect ratio gap filling comprises contacting a semiconductor substrate with an oxide precursor under high density plasma conditions at a first pressure less than about 10 millitorr, wherein said gaps are partially filled with oxide; and further contacting the substrate with an oxide precursor under high density plasma conditions at a second pressure greater than about 10 millitorr, wherein said gaps are further filled with oxide.